

REMARKS

The present invention provides a compact and efficient banknote/document distinguishing device that can verify the accuracy of a banknote/document either as a stand alone unit or as part of a larger banknote/document conveying structure.

As can be readily appreciated, a very compact and economical structure is highly desirable while maintaining a high accuracy in processing the validity of the banknote/document (hereinafter "banknote").

The present invention provides a narrow elongated banknote receiving opening within the housing having a non-linear banknote passageway immediately adjacent the opening, see Figure 3. One or more light restrictive projections can extend into and provide the non-linear portion of the entrance to the banknote passageway. Immediately adjacent and downstream of this non-linear light blocking section is a starting sensor unit that can be protected from any malfunction based on the introduction of outside light. See our Paragraph 0037. This structure enables an efficient and compact configuration to shorten the length of travel on the banknote passageway. See the disclosure on Paragraphs 0035 and 0036. The starting sensor unit can have an optical beam that crosses the banknote passageway downstream of the non-linear portion.

A banknote transporting unit cooperates with a pair of banknote stabilizers 38 and 39, shown in Figure 4, downstream of the starter sensing unit. The banknote stabilizers provide a further narrow path and are described, for example, in our Paragraphs 0045 and 0059 as follows:

Lower banknote stabilizer 39 faces an upper banknote stabilizer 38 and extends from lower banknote guiding surface 4 to upper banknote guiding surface 6. The distance between the end of upper banknote stabilizer 38 and the end of lower banknote stabilizer 39 is a thickness of a few banknotes 9. Also, it has two functions which flatten the banknote 9 and keep an approximately

constant distance between the after-mentioned an emitting sensor and a reflecting sensor.

x x x

Banknote 9 is moved into the path between pulley 32 and belt 37. Afterwards banknote 9 is transported by pulley 31 and belt 37 (in the right direction in Figure 2). In this process, banknote 9 is guided into the narrow path between the end of upper banknote stabilizer 38 and the end of lower banknote stabilizer 39. If the banknote 9 has a crease, banknote 9 is stretched flat. Accordingly, the distances between banknote 9 and first emitting sensor 68, first reflecting sensor 69, second emitting sensor 71, second reflecting sensor 72 become approximately constant. Afterwards banknote 9 is transported by pulley 32 and belt 37.

As can be appreciated, the narrow path that extends between the transmission sensor units not only removes creases and stretches the banknote flat, but further isolates the sensor units from possible ambient light that could be introduced from the exit opening of the banknote passageway.

This is a relatively competitive field with large international companies trying to provide improvements. Our relatively compact configuration facilitates utilizing the present invention at point of sales and in money changing devices, or anywhere an economy of space is extremely important. For example, the square footage in a gambling casino has the ability to create substantial revenue and any improvements that provide a more efficient use of the total space of the gambling casino is important.

“Thus when differences that may appear technologically minor nonetheless have a practical impact, particularly in a crowded field, the decision-maker must consider the obviousness of the new structure in this light.”

Continental Can Co. USA Inc. v. Monsanto Co., 20 U.S.P.Q. 2d. 1746, 1752 (Fed. Cir. 1991).

The Office Action rejected Claims 1-6 and 8-12 as being obvious over the Ma et al. US Patent No. 6,486,464 with particular reliance upon the embodiment of Figure 11. As described in Col. 14, lines 35-50, a particular processing of the output signals in such a “criss-cross” fashion are defined as being weighted, combined or otherwise to analyze for determining whether an adjacent sheet has a single, double or multiple sheet property.

As seen in the schematic of Figure 5, a sheet detecting mechanism 126 is simply shown as a pair of boxes and apparently it is assumed that an introduction of a sheet is by a conventional picking mechanism 118 with no starting sensor unit disclosed adjacent a particular entrance of a banknote passageway. In fact, the schematic Figure 5 suggests an ATM that is, an automatic teller mechanism, with no particular concern for efficiency of space.

The Office Action further contended that Official Notice could be taken with regards to an initial setting button for purpose of calibrating.

The Ma et al. reference, however, does not teach a calibration and claims 7 and 13-14 were rejected over a combination of the Ma et al. reference in view of the Chen US Patent Publication 2002/0033968.

The Chen reference was directed to a duplex scanner with a conventional flatbed scanner where there was a desire to provide an improvement in a duplex scanner capable of calibrating two sided documents. An automatic document feeder was equipped with an upper carriage and an upper calibration paper so that before an image scanning, a relative motion between the upper carriage and the upper calibrating paper was utilized to provide calibration information.

As can be appreciated, this is certainly not directed to a verification of the accuracy of a banknote document. Rather, the desire is to scan the indicia on a document for creating a digital representation. While broadly a calibration characteristic was mentioned, it should be readily

appreciated that the calibration is not designed for the transmission of light through a document nor a combination of light through a document and reflection of the intensity of light from the document to provide a characteristic signature of a banknote.

Our discussion with Pinchus Laufer in the Office of Patent Legal Administration, who was involved in writing the Examination Guidelines for Determining Obviousness under 35 USC §103 in view of the Supreme Court decision in *KSR International Co. vs. Teleflex, Inc.* verified that the KSR decision still required a specific rationale that could not be based on hindsight for purportedly combining the elements in the prior art to meet an invention defined in the patent claims.

Mr. Laufer incorporated the following from the existing MPEP into the Guidelines.

As noted in the MPEP at §2143.02:

A rationale to support a conclusion that a claim would have been obvious is that all the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions, and the combination would have yielded nothing more than predictable results to one of ordinary skill in the art. *KSR International Co. v. Teleflex Inc.*, 550 U.S. ___, ___, 82 USPQ2d 1385, 1395 (2007); *Sakraida v. AG Pro, Inc.*, 425 U.S. 273, 282, 189 USPQ 449, 453 (1976); *Anderson's-Black Rock, Inc. v. Pavement Salvage Co.*, 396 U.S. 57, 62-63, 163 USPQ 673, 675 (1969); *Great Atlantic & P. Tea Co. v. Supermarket Equipment Corp.*, 340 U.S. 147, 152, 87 USPQ 303, 306 (1950). (underline added)

Accordingly, incorporating the functions of the Ma et al. reference, and particularly Figure 11, would not address the adjustment in calibration set forth in our invention nor would the function taught by Chen of simply calibrating a reflective light address a validation of the transmission of light through a banknote. Since these two functions are diverse, it would appear

that hindsight resulted in the combination without an explicit rationale as required by the Examination Guidelines for Determining Obviousness.


Additionally, the particular structural features of a housing with a banknote receiving opening of a particular configuration to receive a banknote while limiting the admission of ambient light and protecting the accuracy of a starting sensor unit would not be addressed by any of the references of record. Additionally, there is no teaching of a document stabilizer unit, let alone a document stabilizer unit for purposes of flattening and stretching a document with a narrow document passageway that also limits the influence of any light from the exit portion of the passageway on the operation of a transmission sensor unit.

It is respectfully submitted that the presently submitted claims do not introduce any new matter and are distinguishable over the combination of references of record and accordingly meet the standards of 35 USC § 116 for allowing this application.

If the Examiner believes a further telephone conference would assist in the prosecution, the undersigned attorney can be contacted at the listed phone number.

Very truly yours,

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